

**FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION***(please fill in the highlighted areas)***I. APPLICANT INFORMATION**

- A. Applicant Name: Big Blackfoot Chapter of Trout Unlimited
- B. Mailing Address: PO Box 1
- C. City: Ovando State: MT Zip: 59854
- Telephone: 406-240-4824 E-mail: ryen@montanatu.org
- D. Contact Person: Ryen Neudecker
- Address if different from Applicant: _____
- City: _____ State: _____ Zip: _____
- Telephone: _____ E-mail: _____
- E. Landowner and/or Lessee Name (if other than Applicant): United States Forest Service-George Liknes, Fisheries Biologist
- Mailing Address: 1569 US HWY 200
- City: Lincoln State: MT Zip: 59868
- Telephone: 362-7003 E-mail: georgealiknes@fs.fed.us

II. PROJECT INFORMATION*

- A. Project Name: Stonewall Creek Fish Screening Project
- River, stream, or lake: Stonewall Creek
- Location: Township: 15N Range: 9W Section: 34
- Latitude: 47.01174 Longitude: 112.71687 *within project (decimal degrees)*
- County: Lewis & Clark
- B. Purpose of Project:
- The purpose of the project is to eliminate entrainment of and improve migration corridors for pure populations of westslope cutthroat trout.

C. Brief Project Description:

Stonewall Creek is a large 1st order tributary to Keep Cool Creek, a third order tributary to the upper Blackfoot River near Lincoln, MT. Stonewall Creek drains the western slopes of Stonewall Mountain then flows south 7.65 miles through a mixture of USFS, DNRC and private lands and supports genetically pure westslope cutthroat trout populations and brown trout. The stream segment of Stonewall Creek that is a focus for this project is near stream mile five where an unscreened irrigation diversion is located. The existing diversion is causing channel impairments and recent electrofishing surveys detected considerable numbers of westslope are being entrained. During the summer of 2014, BBCTU was approached by the irrigators to help develop a project that would result in favorable changes for westslope cutthroat trout populations, while still protecting the landowner's water right and hay production. Working with Montana Fish, Wildlife & Parks, USFWS Partners for Fish, Montana Trout Unlimited and Wildlife and Western Water Project, we are developing a project that involves upgrading the existing diversion with a fish screen and instream cross-vane.

Project specifics involve replacing the existing rock check dam used to divert water with a rock cross-vane set at an elevation to allow fish passage and bedload movement. A fish screen with a bypass will also be installed within the ditch. A flat-plate fish screen with a paddlewheel is the proposed design.

D. Length of stream or size of lake that will be treated:

The project will influence approximately 250 feet of channel but will screen the uppermost diversion on Stonewall Creek just below a reference reach where westslope cutthroat trout numbers are strong.

E. Project Budget:

Grant Request (Dollars): \$ 13,300

Contribution by Applicant (Dollars): \$ 9,000 In-kind \$ 1600
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$ 15,000 In-kind \$
(attach verification - See page 2 budget template)

Total Project Cost: \$ 38,900

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

- H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

- A. What species of fish will benefit from this project?:

Westslope cutthroat trout

- B. How will the project protect or enhance wild fish habitat?:

The project will eliminated entrainment and restore an important migration corridor.

- C. Will the project improve fish populations and/or fishing? To what extent?:

Yes. This project seeks to eliminate limiting factors affecting the wild trout fishery within Stonewall Creek. There is legal access at multiple locations throughout Stonewall Creek.

- D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

Yes, the project will eliminate fish losses to and irrigation ditch, which should improve local fishing opportunity. The public has legal access to Stonewall Creek at the project location as well as upstream on USFS land.

- E. If the project requires maintenance, what is your time commitment to this project?:

The water right holders & irrigation managers have agreed to sign a 20-year agreement.

- F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

The existing rock infrastructure used to divert water has created channel impacts and the unscreened diversion is entraining trout populations.

- G. What public benefits will be realized from this project?:

This project involves the continuation of the partnership driven Blackfoot Restoration program and will benefit a species of special concern. In addition to improving instream habitat conditions, this project is visible and will be an excellent educational opportunity for the community of Lincoln, MT.

- H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No. The project is designed to only take the legal water right at the project point of diversion.

- I. Will the project result in the development of commercial recreational use on the site?: (explain):

No

- J. Is this project associated with the reclamation of past mining activity?:

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:



Date:

5-26-15

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

**Mail To: Montana Fish, Wildlife & Parks
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701**

**E-mail To: Michelle McGree
mmcgree@mt.gov**

**Incomplete or late applications will be returned to applicant.
Applications may be rejected if this form is modified.**

*****Applications may be submitted at anytime, but must be received by the Future Fisheries Program office in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES	IN-KIND CASH	TOTAL
Personnel								
Survey	10	hrs	\$80.00	\$ 800.00			800.00	\$ 800.00
Design	30	hrs	\$95.00	\$ 2,850.00			2,850.00	\$ 2,850.00
Engineering	30	hrs	\$100.00	\$ 3,000.00			3,000.00	\$ 3,000.00
Permitting	15	hrs	\$40.00	\$ 600.00		600.00		\$ 600.00
Oversight	60	hrs	\$85.00	\$ 5,100.00	2,000.00	1,000.00	2,100.00	\$ 5,100.00
Labor	20	hrs	\$65.00	\$ 1,300.00			1,300.00	\$ 1,300.00
			Sub-Total	\$ 13,650.00	\$ 2,000.00	\$ 1,600.00	\$ 10,050.00	\$ 13,650.00
Travel								
Mileage				\$ -				\$ -
Per diem				\$ -				\$ -
			Sub-Total	\$ -	\$ -	\$ -	\$ -	\$ -
Construction Materials								
Fish Screen	1	each	\$10,000.00	\$ 10,000.00	5,000.00		5,000.00	\$ 10,000.00
Concrete box	1	each	\$5,000.00	\$ 5,000.00	2,000.00		3,000.00	\$ 5,000.00
Rock	30	cy	\$100.00	\$ 3,000.00	1,000.00		2,000.00	\$ 3,000.00
Pipe	misc	lump sum	\$500.00	\$ 500.00			500.00	\$ 500.00
			Sub-Total	\$ 18,500.00	\$ 8,000.00	\$ -	\$ 10,500.00	\$ 18,500.00
Equipment								
Hydraulic Excavator	50	hours	\$125.00	\$ 6,250.00	3,300.00		2,950.00	\$ 6,250.00
			Sub-Total	\$ 6,250.00	\$ 3,300.00	\$ -	\$ 2,950.00	\$ 6,250.00
Mobilization								
Equipment	1	lump sum	\$500.00	\$ 500.00			500.00	\$ 500.00
			Sub-Total	\$ 500.00	\$ -	\$ -	\$ 500.00	\$ 500.00
TOTALS				\$ 38,900.00	\$ 13,300.00	\$ 1,600.00	\$ 24,000.00	\$ 38,900.00

*Units = feet, hours, inches, lump sum, etc.

MATCHING CONTRIBUTIONS

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Verified? (Y/N)
Montana Trout Unlimited	\$ -	\$ 5,000.00	\$ 5,000.00	Yes
USFWS	\$ -	\$ 10,000.00	\$ 10,000.00	Yes
BBCTU	\$ 1,600.00	\$ 9,000.00	\$ 10,600.00	Yes



Photos 1-3: Existing instream rock dam diversion looking downstream and upstream and MTFWP electrofishing Stonewall Creek ditch.

PRELIMINARY DESIGN

FISH SCREEN INSTALLATION AND IRRIGATION DIVERSION IMPROVEMENT

STONEWALL CREEK

NEAR LINCOLN, MONTANA

PROJECT PARTNERS



BIG BLACKFOOT CHAPTER OF TROUT UNLIMITED
PO Box 1
Ovando, MT 59854

PROJECT DESCRIPTION

STONEWALL CREEK IS A TRIBUTARY TO KEEP COOL CREEK IN THE UPPER BLACKFOOT RIVER WATERSHED NEAR LINCOLN, MONTANA. THE PROJECT AREA IS LOCATED IN MIDDLE STONEWALL CREEK AND CONSISTS OF AN EXISTING DIVERSION STRUCTURE THAT PROVIDES IRRIGATION WATER TO DOWNSTREAM USERS. BIG BLACKFOOT CHAPTER OF TROUT UNLIMITED (BBCTU) HAS BEEN COORDINATING IMPROVEMENTS TO THE DIVERSION STRUCTURE WITH WATER USERS AND HAS RETAINED RIVER DESIGN GROUP, INC. (RDG) TO PREPARE AN ENGINEERED DESIGN THAT WILL IMPROVE FISH PASSAGE AND ELIMINATE ENTRAINMENT OF NATIVE TROUT TO THE IRRIGATION DITCH.

THE EXISTING DIVERSION STRUCTURE CONSISTS OF A 22-INCH CULVERT AND HEADGATE. WATER IS DIVERTED FROM STONEWALL CREEK INTO THE HEADGATE VIA A SERIES OF PLACED BOULDERS THAT ARE AUGMENTED WITH PLASTIC SHEETING DURING LOW FLOW PERIODS. THE EXISTING DIVERSION IS UNSCREENED.

SPECIFIC OBJECTIVES OF THIS PROJECT INCLUDE:

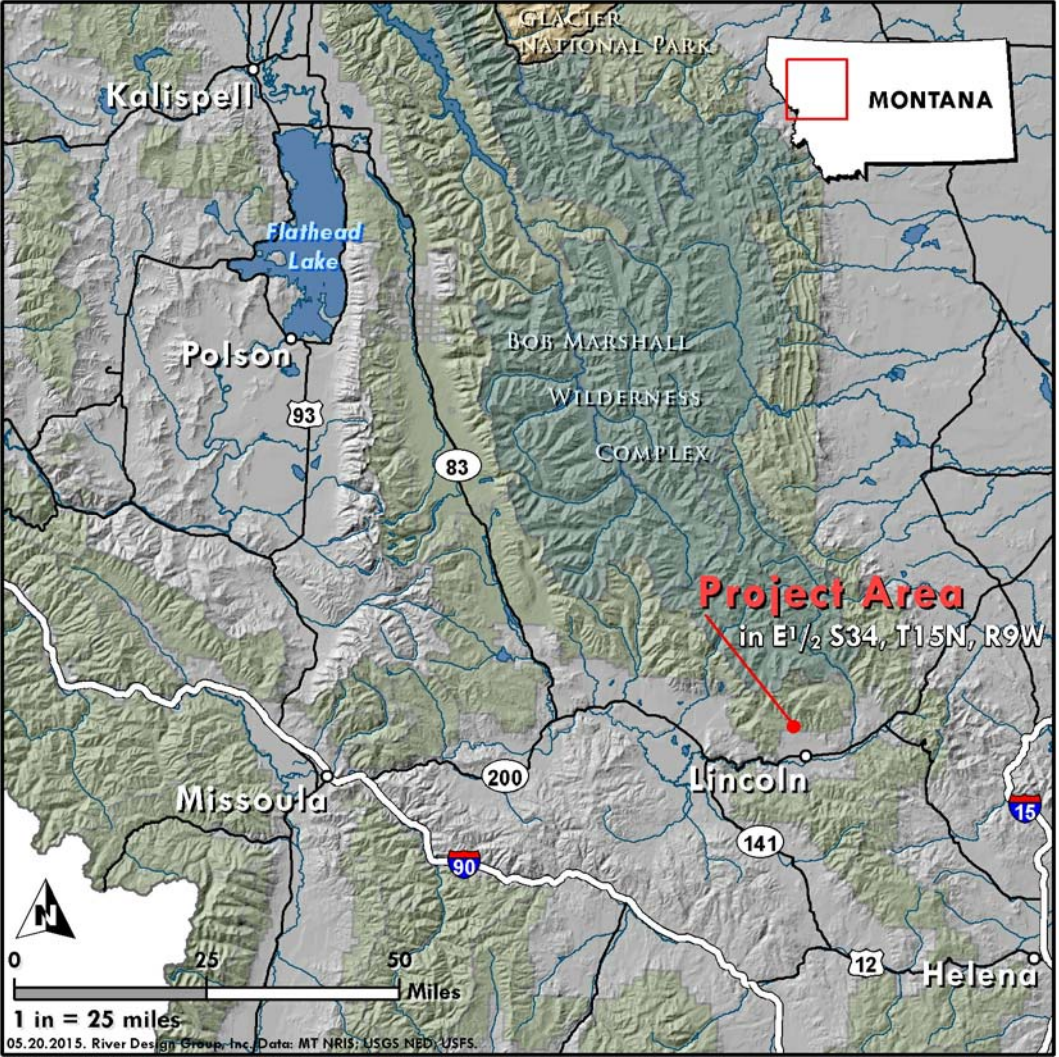
- ELIMINATE FISH ENTRAINMENT IN THE EXISTING IRRIGATION DIVERSION FOR ALL SALMONIDS BY INSTALLING A PITMAN PADDLE WHEEL FISH SCREEN IN THE EXISTING DITCH;
- PROVIDE UPSTREAM FISH PASSAGE FOR ALL SIZES OF SALMONIDS AT ALL FLOW LEVELS BY INSTALLING A STABLE, MAINTENANCE-FREE DIVERSION STRUCTURE THAT WILL TRANSPORT STREAM BEDLOAD, MINIMIZE DEPOSITION IN THE DIVERSION INLET, AND DELIVER PRESCRIBED WATER TO IRRIGATORS;
- MAINTAIN THE EXISTING HEADGATE STRUCTURE; AND
- MAINTAIN INSTREAM FLOW LEVELS NECESSARY FOR CONNECTIVITY AND STREAM INTEGRITY BELOW THE EXISTING DIVERSION ON STONEWALL CREEK.

THIS PLAN SET REPRESENTS A PRELIMINARY DESIGN. INCLUDED ARE FOUR SHEETS: 1) 1.0: COVER PAGE AND NOTES; 2) 2.0 EXISTING CONDITIONS; 3) 3.0 PROFILES AND CROSS SECTIONS; AND 4) 4.0 PRELIMINARY DESIGN. RDG AND BBCTU ARE IN THE PROCESS OF REFINING THE DESIGN WITH AN ANTICIPATED COMPLETION DATE OF JULY 2015. IMPLEMENTATION OF THE DESIGN IS SCHEDULED FOR FALL 2015.

BENCHMARK

SURVEY CONTROL WAS ESTABLISHED UNDER THE RESPONSIBLE CHARGE OF ANDREW BELSKI, PLS 14731. THE PROJECT COORDINATES ARE BASED ON A LOCAL ASSUMED DATUM.

PROJECT VICINITY MAP



DRAWING INDEX

- 1.0 COVER PAGE AND NOTES
- 2.0 EXISTING CONDITIONS
- 3.0 PROFILE AND CROSS SECTIONS
- 4.0 PRELIMINARY DESIGN
- 5.0 CONCRETE BOX DETAIL



038-20

RIVER DESIGN GROUP, INC.

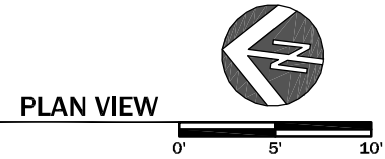
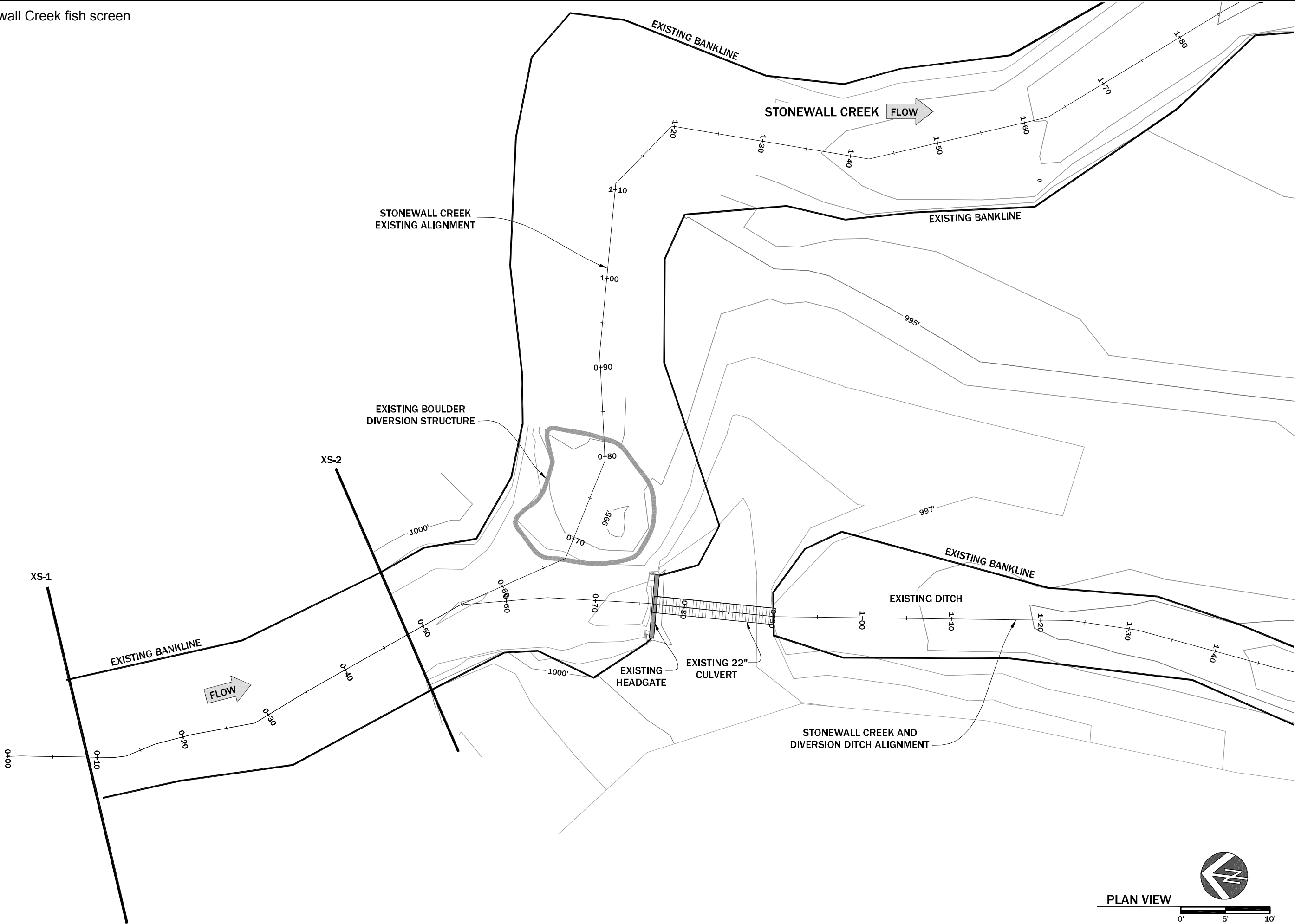
236 Wisconsin Avenue
Whitefish, MT 59937
tel. 406.862.4927
fax. 406.862.4963

311 SW Jefferson Avenue
Corvallis, OR 97331
tel. 541.758.5520
fax. 541.758.5524

STONEWALL CREEK DIVERSION

COVER PAGE AND NOTES

NO.	DATE	BY	DESCRIPTION	CHK
1	5-20-15	NW	PRELIMINARY DESIGN	JM
preliminary				
-not for construction-				
PROJECT NUMBER RDG-14-081				
SHEET NUMBER 1.0 ₇				





038-2015

RIVER
DESIGN
GROUP, INC.

5098 Hwy 93 South
Whiterish, MT 59937

3111 SW Jefferson Avenue
Corvallis, OR 97331

Tel: 541.738.2920
Fax: 541.738.8524

Tel: 406.862.4927
Fax: 406.862.4963

STONEWALL CREEK DIVERSION

EXISTING CONDITIONS

NO.	DATE	BY	DESCRIPTION	CHK
1	5-20-15	NW	PRELIMINARY DESIGN	JM

PROJECT NUMBER

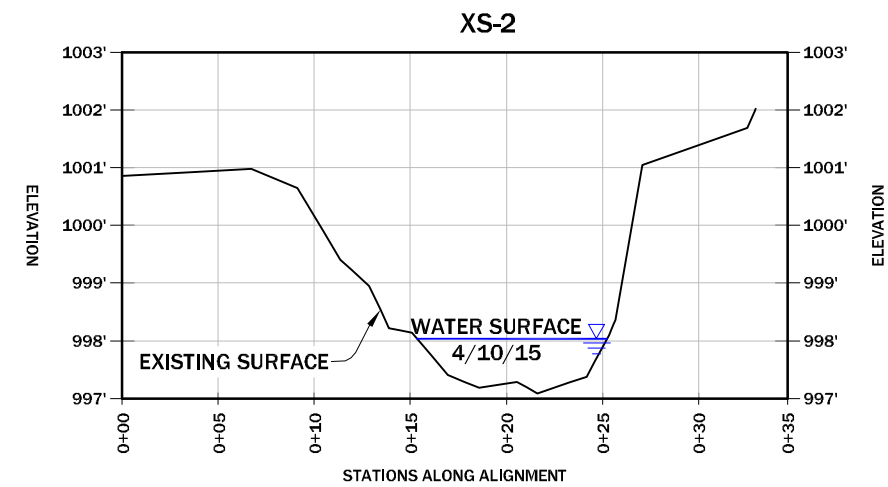
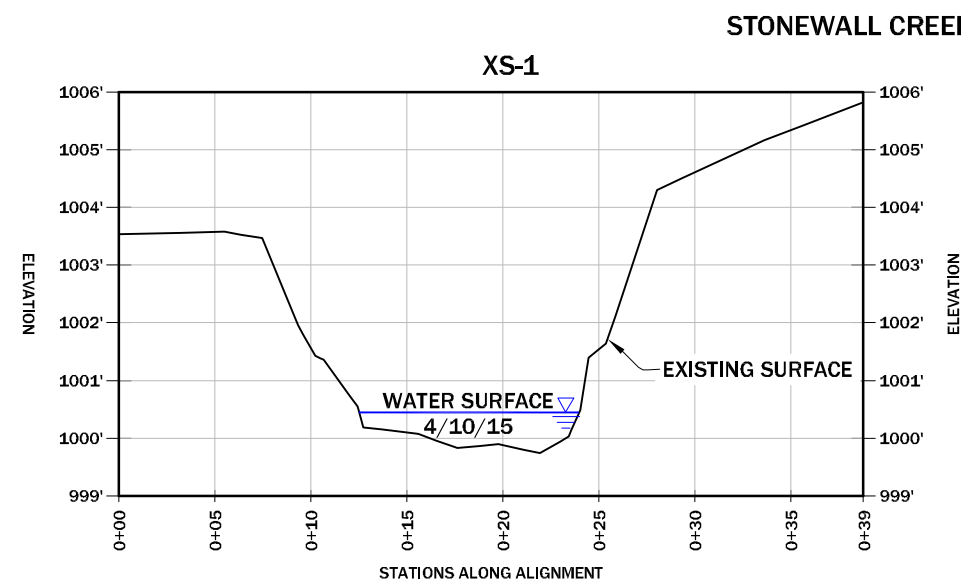
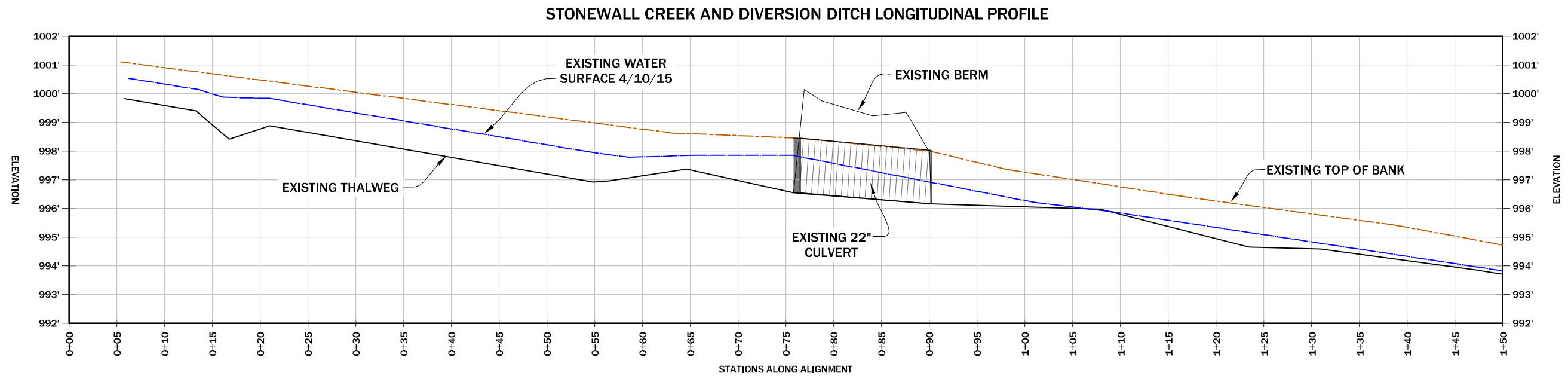
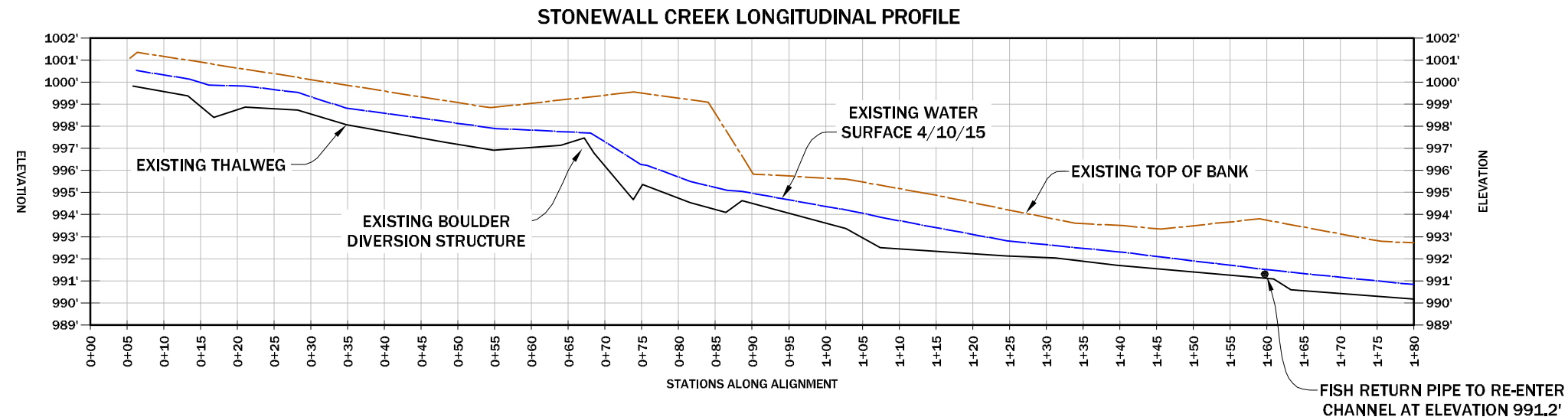
RDG-14-081

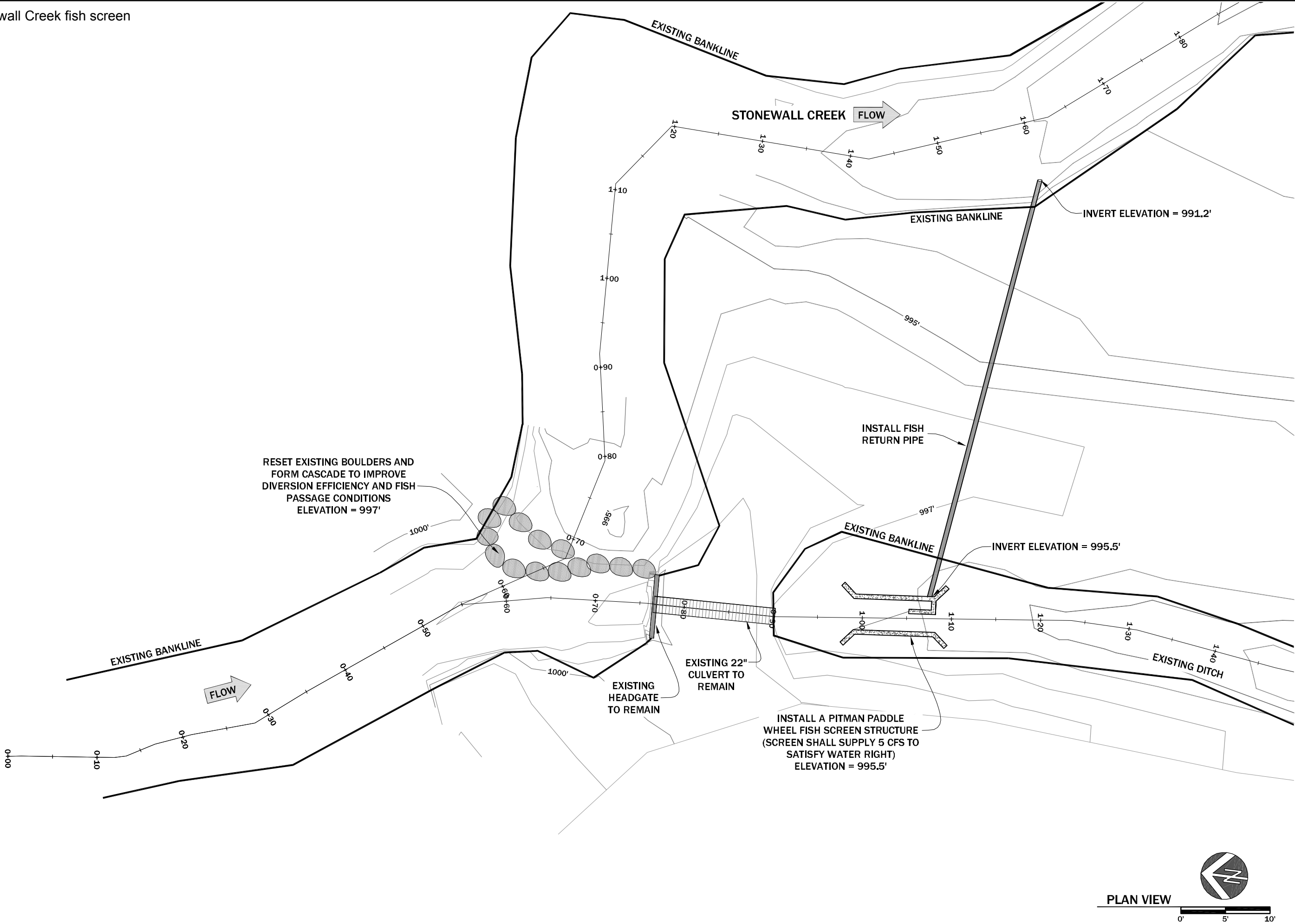
SHEET NUMBER

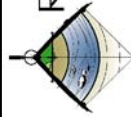
2.0

8

preliminary
-not for construction-

[illegible]





038-2015

RIVER DESIGN GROUP, INC.

5098 Hwy 93 South
Whiterish, MT 59937

311 SW Jefferson Avenue
Corvallis, OR 97331

Tel: 541.738.2920
Fax: 541.738.8524

STONEWALL CREEK DIVERSION

PRELIMINARY DESIGN

NO.	DATE	BY	DESCRIPTION	CHK
1	5-20-15	NW	PRELIMINARY DESIGN	JM

PROJECT NUMBER

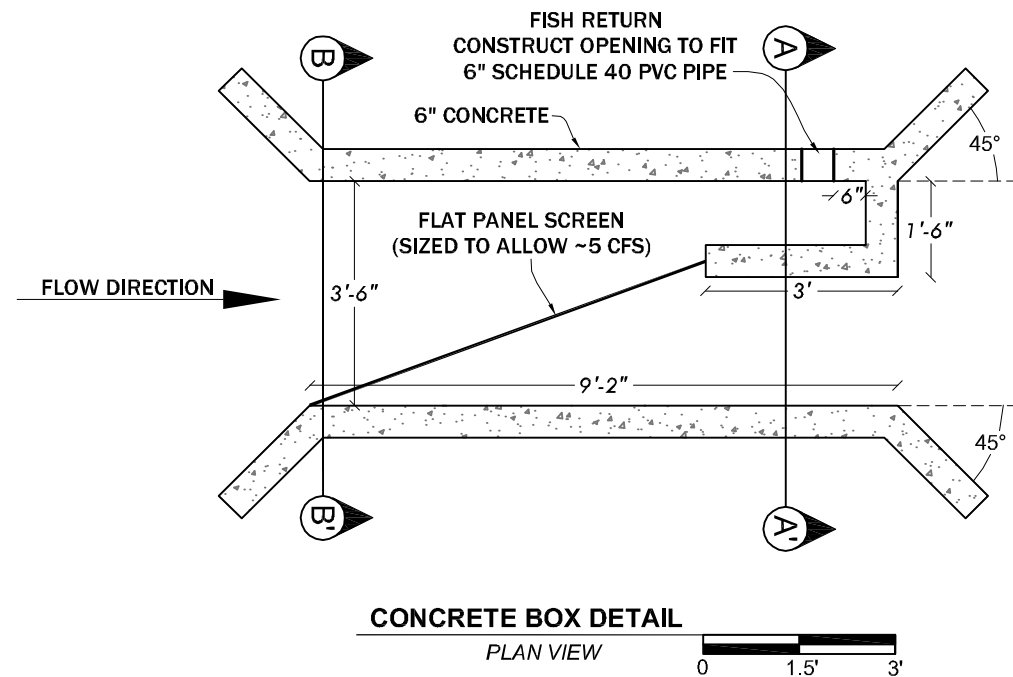
RDG-14-081

SHEET NUMBER

4.0

10

preliminary
-not for construction-

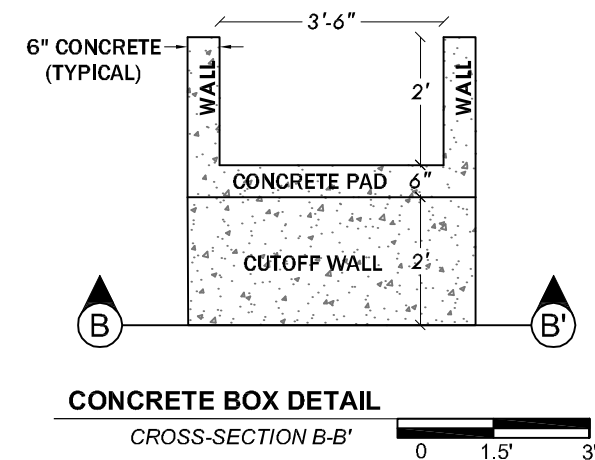
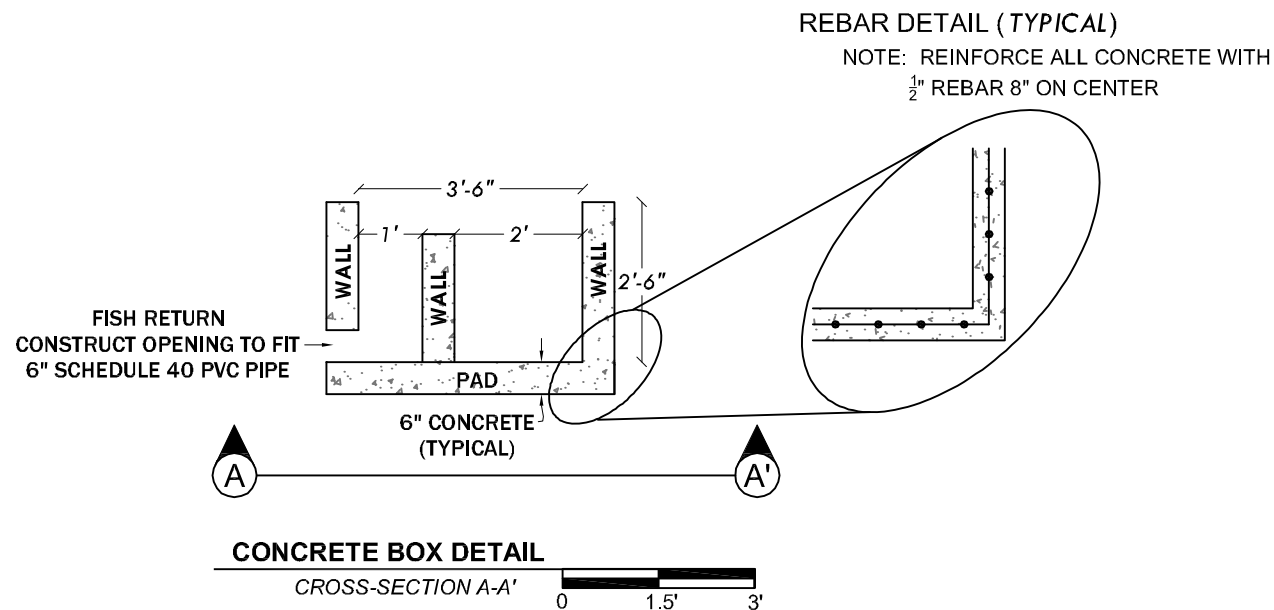


CONSTRUCTION NOTES

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI-318).
2. DETAILING, FABRICATION AND PLACEMENT OF REINFORCEMENT SHALL CONFORM TO DETAIL AND DETAILING OF CONCRETE REINFORCEMENT (ACI-315).
3. MATERIALS:
 - A. CONCRETE - STRUCTURAL CAST IN PLACE FC=3,000 PSI
 - B. REINFORCING MATERIALS - REINFORCING BARS ASTM A615, GRADE 60
4. ALL BENT REINFORCING BARS SHALL BE SHOP FABRICATED ONLY.
5. CONCRETE COVER OVER REINFORCEMENT SHALL BE 2" CLEAR, EXCEPT FOR CONCRETE PLACED AGAINST EARTH SHALL BE 3" CLEAR, UNLESS OTHERWISE INDICATED.
6. LAP REINFORCING BARS THE FOLLOWING MINIMUMS AT ALL SPLICES, CORNERS AND INTERSECTIONS, UNLESS OTHERWISE INDICATED. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.

<u>BAR SIZE</u>	<u>REG. BARS</u>	<u>TOP BARS</u>
#4	1'-7"	2'-1"
#5	2'-0"	2'-7"
#6	2'-5"	3'-1"
7. PROVIDE BAR SUPPORTS TO PROPERLY SECURE AND SUPPORT REINFORCING BARS AT POSITION SHOWN ON THE DRAWINGS.
8. DOWELS, PIPES AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION DURING CONCRETE PLACEMENT.
9. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PART EMBEDDED IN CONCRETE. PROVIDE 2" CLEARANCE IN ALL CASES UNLESS OTHERWISE INDICATED. NO EMBEDDED ITEM SHALL BE SUSPENDED FROM, SUPPORTED BY, OR BRACED IN PLACE FROM THE STRUCTURAL REINFORCEMENT.
10. LOCATE CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS OR AS AUTHORIZED BY ENGINEER.
11. UNLESS OTHERWISE SHOWN, PLACE 2-#5 (1 EACH FACE) WITH 2'-0" PROJECTIONS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS.
12. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE INDICATED.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FORM WORK.

<u>BAR SIZE</u>	<u>REG. BARS</u>	<u>TOP BARS</u>
#4	1'-7"	2'-1"
#5	2'-0"	2"-7"
#6	2'-5"	3'-1"

[illegible]



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Montana Partners for Fish & Wildlife
POB 66
Ovando, MT 59854



May 26, 2015

Montana Fish, Wildlife & Parks
Future Fisheries Habitat Improvement Panel
PO Box 200701
Helena, MT 59620-0701

RE: Stonewall Creek and Trail Creek Fish Screening Projects

Dear Future Fisheries Panel Members:

This letter is written in support of the Stonewall Creek, Trail Creek and Devil's Dip Spring Creek applications submitted by the Big Blackfoot Trout Unlimited (BBCTU). These important projects are a collaborative effort between private landowners, BBCTU, Montana Fish, Wildlife & Parks (MFWP), other local supporters and the USFWS Partners for Fish and Wildlife Program.

The proposed projects will complement numerous efforts in the Blackfoot Watershed during the past 28 years which include instream habitat restoration, fish passage projects, road decommissioning, water conservation, intensive fisheries monitoring and fish screening projects. This broad-based community based conservation and restoration effort has resulted in population increases of almost 800% for westslope cutthroat and bull trout in comparison to baseline numbers.

The Partners for Fish and Wildlife has a long history of working with the associated private landowners and other partners collaborating to restore the cold water fishery of the important tributaries feeding the Blackfoot River. The proposed projects on Stonewall Creek, Trail Creek and Devil's Dip Spring Creek are exciting in that we will be able to continue our efforts of restoring native trout within the watershed by working with committed landowners.

I encourage your strong consideration of this proposal to enhance populations of both resident and migratory westslope cutthroat trout populations on three high priority native trout tributaries in the Blackfoot River watershed. Please don't hesitate to contact me if you have questions or need additional information.

Thanks for all your efforts on behalf of native trout.

Sincerely,

Randy Gazda, Assistant State Coordinator



Date: May 26, 2015

Montana Fish Wildlife & Parks
Future Fisheries Habitat Improvement Program
P.O. Box 200701
Helena, MT 59620-0701

Attn: Michelle McGree

RE: Blackfoot River Watershed Westslope Cutthroat Screening Project - Stonewall Creek

Dear Michelle and Members of the Citizen Panel:

The Helena National Forest has been working with The Big Blackfoot Chapter of Trout Unlimited (BBCTU), Montana Fish, Wildlife and Parks, the Blackfoot Challenge, the US Fish & Wildlife Service, Montana DEQ, private citizens, Montana Trout Unlimited as well as other local and national groups as part of a comprehensive effort to improve native fish habitat, correct connectivity issues, reduce fish entrainment and reduce anthropomorphic sediment delivery to streams and rivers in the Blackfoot drainage.

The project that has been proposed for implementation in this grant proposal, the Stonewall Creek fish screen is a project that we believe is very worthwhile from a fisheries resource and native fish perspective. It deserves your consideration for funding.

Screening of the irrigation diversion on Stonewall Creek, which is located on National Forest lands, will complement and benefit other restoration activities in the drainage. As I'm sure you recall, these projects are occurring on both private lands downstream and a large project approximately 4,300 feet in length upstream on Stonewall Creek that would restore fisheries habitat and develop a floodplain that was severely impaired from placer mining operations. The cumulative effect of these projects, which address limiting factors, will benefit the genetically pure westslope cutthroat trout resident population, improve habitat and connectivity, eliminate losses from entrainment, and ultimately are geared to benefitting the migratory westslope cutthroat trout in the Blackfoot River as well.

The proposed project is cost-effective as well as biologically beneficial. BBCTU has an established track record when it comes to improving native trout habitat in the Blackfoot River drainage of Montana and monitoring data from various agencies verify the results. I would urge the citizens panel to seriously consider funding this project. If you have questions about these proposed projects that I could address, please contact me anytime at 406.362.7003.



Sincerely,



GEORGE LIKNES
Aquatic Program Leader

cc: Ryen. Neudecker, Big Blackfoot Chapter Trout Unlimited

